WHAT IS CLAIMED IS:

1. A reproducing apparatus comprising:

reproducing means for reproducing moving image data for normal reproduction and image data for high-

5   speed reproduction from a recording medium which records thereon moving image data train including the moving image data for normal reproduction which is encoded by using intra-frame coding and inter-frame coding and the image data for high-speed reproduction,

10   and

an interface which multiplexes and outputs in a form of encoded data the moving image data for normal reproduction and the image data for high-speed reproduction, each of which is reproduced by the

15   reproducing means.

2. A reproducing apparatus according to claim 1, wherein the interface converts the moving image data for normal reproduction and the image data for high-

20   speed reproduction into a plurality of packets having a dada size of a predetermined amount respectively, and the interface multiplexes and outputs the plurality of packets.

25   3. A reproducing apparatus according to claim 2, wherein each of the plurality of packets includes ID data, and the interface allocates predetermined

values different from each other to the ID data of the packet of the moving image data for normal reproduction and the ID data of the packet of the image data for high-speed reproduction.

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4. A reproducing apparatus according to claim 1, further comprising controlling means for controlling whether the image data for high-speed reproduction is multiplexed and output or not, in accordance with a

10   status of an apparatus to which the moving image data for normal reproduction and the image data for high-speed reproduction are to be output.

5. A reproducing apparatus according to claim 4,

15   wherein the interface detects information stored in a predetermined register of the apparatus to which the moving image data for normal reproduction and the image data for high-speed reproduction are to be output, while the interface outputs the moving image

20   data for normal reproduction and the image data for high-speed reproduction pursuant to an IEEE1394 standard, and the controlling means controls whether the image data for high-speed reproduction is multiplexed and output or not, in accordance with the

25   information detected by the interface.

6. A reproducing apparatus according to claim 1,

further comprising decoding means for decoding the moving image data for normal reproduction and the image data for high-speed reproduction, each of which is reproduced by the reproducing means, and for

5 selecting and outputting one of the decoded moving image data for normal reproduction and the decoded image data for high-speed reproduction.

7. A reproducing apparatus according to claim 6,

10 wherein the interface further receives a transmission data train, in which the moving image data for normal reproduction and the image data for high-speed reproduction are multiplexed in a form of encoded data, through a transmission line and detects the

15 moving image data for normal reproduction and the image data for high-speed reproduction from the received transmission data train to output the detected data to the decoding means.

20 8. A reproducing apparatus according to claim 1, wherein the image data for high-speed reproduction includes only image data of a frame encoded by the intra-frame coding among the moving image data for normal reproduction.

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9. A reproducing apparatus according to claim 1, wherein the recording medium includes a tape-shaped

recording medium, and the moving image data for
normal reproduction and the image data for high-speed
reproduction are recorded in a plurality of tracks
formed on the tape-shaped recording medium.

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10. A reproducing apparatus according to claim
9, wherein the image data for high-speed reproduction
is recorded at a position corresponding to a scanning
trajectory of a reproducing head in high-speed
10 reproduction within the plurality of tracks.

11. A recording apparatus comprising:
encoding means for encoding moving image data
by using intra-frame coding and inter-frame coding to
15 generate the moving image data for normal
reproduction, and generating image data for high-
speed reproduction by using a part of the moving
image data for normal reproduction,
recording means for forming a plurality of
20 tracks on a tape-shaped recording medium and
recording the moving image data for normal
reproduction and the image data for high-speed
reproduction, each of which is generated by the
encoding means, in the plurality of tracks; and
25 an interface which multiplexes and outputs in a
form of encoded data the moving image data for normal
reproduction and the image data for high-speed

reproduction, each of which is generated by the encoding means.

12. A recording apparatus according to claim 11, wherein the recording means records the image data for high-speed reproduction at a predetermined position decided in the each track.

13. A recording apparatus according to claim 12, wherein the recording means records the image data for high-speed reproduction at a position corresponding to a scanning trajectory of a head in high-speed reproduction within the plurality of tracks.

14. A recording apparatus according to claim 11, wherein the interface converts each of the moving image data for normal reproduction and the image data for high-speed reproduction into a plurality of packets having a dada size of a predetermined amount and multiplexes and outputs the plurality of packets.

15. A recording apparatus according to claim 14, wherein each of the plurality of packets includes ID data, and the interface allocates predetermined values different from each other to the ID data of the packet of the moving image data for normal

reproduction and an ID data of the packet of the
image data for high-speed reproduction.

16. A recording apparatus according to claim 11,
wherein the interface further receives a transmission
data train, in which the moving image data for normal
reproduction and the image data for high-speed
reproduction are multiplexed while are encoded, from
an external apparatus, and the recording means
further records the moving image data for normal
reproduction and the image data for high-speed
reproduction, each of which is received by the
interface.

17. A recording apparatus according to claim 11,
wherein the encoding means generates the image data
for high-speed reproduction by using only image data
of a frame encoded by the intra-frame coding among
the moving image data for normal reproduction.

18. A reproducing apparatus comprising:
reproducing means for reproducing image data for
normal reproduction and image data for high-speed
reproduction from a recording medium on which a
plurality of tracks are formed, in which tracks a
moving image data train including the moving image
data for normal reproduction which is encoded

pursuant to a packetized elementary stream format of
MPEG2, and the image data for high-speed reproduction
corresponding to the moving image data for normal
reproduction; and

5   an interface which multiplexes and outputs in a
form of the transport stream format of MPEG2 the
moving image data for normal reproduction of a
packetized elementary stream format and the image
data for high-speed reproduction of the packetized
10   elementary stream format, each of which is reproduced
by the reproducing means.

     19. A reproducing apparatus according to claim
18, wherein the interface allocates values different
15   from each other to a packet ID of a transport stream
packet of the moving image data for normal
reproduction and a packet ID of the transport stream
packet of the image data for high-speed reproduction.

20   20. A reproducing apparatus comprising:
reproducing means for reproducing moving image data
for normal reproduction and image data for high-speed
reproduction from a recording medium which records
thereon a moving image data train including the
25   encoded moving image data for normal reproduction and
the image data for high-speed reproduction which is
generated by using a part of the moving image data

for normal reproduction;

    decoding means for decoding the moving image data for normal reproduction and the image data for high-speed reproduction, each of which is reproduced by the reproducing means, the decoding means outputting the moving image data for normal reproduction in a normal reproducing mode and selecting and outputting the image data for high-speed reproduction in a rapid reproducing mode; and

    an interface which multiplexes and output in a form of encoded data the moving image data for normal reproduction and the image data for high-speed reproduction each of which is reproduced by the reproducing means.